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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,325	07/02/2002	Ilia Greenblat	56162.000321	8282

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EXAMINER

BHATIA, AJAY M

ART UNIT	PAPER NUMBER
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2145

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/064,325

Applicant(s)

GREENBLAT, ILIA

Examiner

Ajay M. Bhatia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2002.  
2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-74 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-74 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/13/02.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120, 121, or 365(c) as follows:

This application is claiming the benefit of a prior filed nonprovisional application under 35 U.S.C. 120, 121, or 365(c). Copendency between the current application and the prior application is required.

***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Double Patenting***

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Applicant is advised that should claim 38,39, 56, 57, 73, 74 be found allowable, claim 1 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-74 are rejected under 35 U.S.C. 102(b) as being anticipated by Sweazey (U.S. 5,485,578).

For claim 1, Sweazey teaches, a rings-based system on a chip, comprising:

a plurality of ring members on a ring that communicate using point-to-point connectivity;

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a plurality of ring interfaces for interfacing the ring members with the ring;  
a message traversing the ring;  
wherein the message travels one ring member per clock cycle; and  
wherein the system is adapted so that upon the message arriving at a given ring member the message is processed by that ring member if the message is applicable to that ring member, and if the message is not applicable to that ring member, the message is passed on to the next ring member. (see Sweazey, Col. 1 lines 11-17, Col. 1 lines 52-61, Col. 5 line 65 to Col. 6 line 15, Col. 6 lines 15-19, Col. 6 line 43 to Col. 7 line 2)

For claim 2, Sweazey teaches, the system of claim 2, wherein the message is applicable to the given ring member based on at least one of an identifier identifying that ring member and an identifier indicating that the message applies to multiple ring members. (see Sweazey, Col. 3 lines 1-5, Col. 6 line 42 to Col. 7 line 2, Col. 7 line 60 to Col. 8 line 9)

For claim 3, Sweazey teaches, the system of claim 3, wherein the identifier identifying the given ring member comprises an address for that ring member. (see Sweazey, Col. 3 lines 1-5, Col. 6 line 42 to Col. 7 line 2, Col. 7 line 60 to Col. 8 line 9)

For claim 4, Sweazey teaches, the system of claim 3, wherein the identifier indicating that the message applies to multiple ring members comprises message data

designating the message as a supervisory message. (see Sweazey, Col. 3 /1-5, Col. 3 lines 5-18, Col. 8 lines 35-44)

For claim 5, Sweazey teaches, the system of claim 1, wherein the message comprises a type field, an address field, and a data field. (see Sweazey, Col. 7 line 60 to Col. 8 line 9)

For claim 6, Sweazey teaches, the system of claim 1 , wherein the message comprises an enumeration message. (see Sweazey, Col. 3 lines 1-5, Col. 6 line 42 to Col. 7 line 2, Col. 7 line 60 to Col. 8 line 9, figure 6)

For claim 7, Sweazey teaches, the system of claim 6, wherein the enumeration message is processed by the ring members in order to assign address space consumed by each ring member. (see Sweazey, Col. 3 lines 1-5, Col. 6 line 42 to Col. 7 line 2, Col. 7 line 60 to Col. 8 line 9, figure 6)

For claim 8, Sweazey teaches, the system of claim 7, wherein a subsequent supervisory message causes the results of the enumeration message to be returned, thereby allowing a central member comprising a CPU to infer the topology of the system. (see Sweazey, Col. 4 lines 15-25, Col. 7 lines 32-38, Col. 7 line 60 to Col. 8 line 9, Col. 8 lines 35-44, figure 10)

For claim 9, Sweazey teaches, the system of claim 1, further comprising a land bridge that allows the message to proceed from one side of the ring to an other side of the ring without traversing some of the intermediate ring members. (see Sweazey, Col. 11 lines 47-59, Col. 12 lines 53-62, Col. 15 lines 24-42)

For claim 10, Sweazey teaches, the system of claim 1, wherein the plurality of ring members and plurality of ring interfaces comprise a first ring, and further comprising a plurality of second ring members and a plurality of second ring interfaces defining a second ring, both the first ring and the second ring implemented as a system on a chip, and wherein the first ring and the second ring are coupled using a sea bridge. (see Sweazey, Col. 7 lines 21-33)

For claim 11, Sweazey teaches, the system of claim 9, wherein the logic of the land bridge is configured based on the results of an enumeration message. (see Sweazey, Col. 3 lines 1-5, Col. 5 line 65 to Col. 6 line 15, Col. 6 line 42 to Col. 7 line 2, Col. 7 line 60 to Col. 8 line 9, Col. 11 lines 47-59, Col. 12 lines 53-62)

For claim 12, Sweazey teaches, the system of claim 10, wherein the logic of the sea bridge is configured based on the results of an enumeration message. (see Sweazey, Col. 3 lines 1-15, Col. 5 line 65 to Col. 6 line 15, Col. 6 line 42 to Col. 7 line 2, Col. 7 line 60 to Col. 8 line 9, Col. 11 lines 47-59, Col. 12 lines 53-62)

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For claim 13, Sweazey teaches, the system of claim 1, wherein the ring includes an external ring interface allowing the ring to communicate with modules that are not part of the ring. (see Sweazey, Col. 6 line 42 to Col. 7 line 2)

For claim 14, Sweazey teaches, the system of claim 1, wherein the ring members comprise a CPU and a plurality of peripherals, and wherein the peripherals are adapted to write ahead changes in peripheral status, thereby reducing the quantity of read messages that are issued by the CPU. ((see Sweazey, Col. 1 lines 52-61, Col. 2 lines 37-67)

For claim 15, Sweazey teaches, the system of claim 1, wherein the message comprises a reset message that is processed by the plurality of ring members in order to reset the system. (see Sweazey, Col. 3 lines 5-18, Col. 3 lines 5-18)

For claim 16, Sweazey teaches, the system of claim 1, wherein the message comprises a request from a CPU ring member that causes the other ring members to report out their address information. (see Sweazey, Col. 3 lines 5-18, Col. 3 lines 5-18)

For claim 17, Sweazey teaches, the system of claim 1, wherein the message comprises an activate message that is processed by the plurality of ring members in order to activate the system. (see Sweazey, Col. 3 lines 5-18, Col. 3 lines 5-18)



For claim 18, Sweazey teaches, the system of claim 1, wherein the message comprises a write message that is processed by one of the plurality of ring members to write data thereto. (see Sweazey, Col. 2 lines 37-67)

For claim 19, Sweazey teaches, the system of claim 1, wherein the message comprises a read message that is processed by one of the plurality of ring members to read data therefrom. (see Sweazey, Col. 2 lines 37-67)

For claim 20, Sweazey teaches, the system of claim 1, wherein the message includes stray message indicia so that the system can identify stray messages. (see Sweazey, Col. 2 lines 37-67, Col. 3 lines 1-5)

For claim 21, Sweazey teaches, the system of claim 1, wherein subsequent ring members are adapted to supply backpressure signals to prior ring members. (see Sweazey, Col. 2 lines 37-67)

For claim 22, Sweazey teaches, a communications processing system utilizing a ring network architecture, comprising:

a plurality of ring members connected in point-in-point fashion along the ring network, a transaction based connectivity for communicating at least one message among at least a portion of the ring members, wherein the message includes information indicative of a destination ring member for which the message is intended

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and the message is passed around the ring network until reaching the destination ring member; and

the destination ring member being adapted to receive the message and remove it from the ring network. (see Sweazey, Col. 1 lines 11-17, Col. 1 lines 52-61, Col. 5 line 65 to Col. 6 line 15, Col. 6 lines 15-19, Col. 6 line 43 to Col. 7 line 2)

Claims 23-39 list all the same elements of claims 1-21, but in system form rather than chip form. Therefore, the supporting rationale of the rejection to claims 1-21 applies equally as well to claims 23-29.

For claim 40, Sweazey teaches, a communications processing system utilizing a ring network architecture, comprising:

a plurality of ring members having unique addresses and connected in a point-in-point fashion along the ring network, a transaction based connectivity for communicating at least one message among at least a portion of the ring members, wherein the message includes a destination ring member address for which the message is intended and the message is passed around the ring network until reaching the destination ring member; and

the destination ring member being adapted to receive the message and remove it from the ring network. (see Sweazey, Col. 1 lines 11-17, Col. 1 lines 52-61, Col. 5 line 65 to Col. 6 line 15, Col. 6 lines 15-19, Col. 6 line 43 to Col. 7 line 2)

Claims 41-57 list all the same elements of claims 1-21, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claims 1-21 applies equally as well to claims 41-57.

For claim 58, Sweazey teaches, a communications processing system utilizing a ring network architecture, comprising:

- a plurality of ring members having unique addresses and communicatively connected in a point-in-point fashion along the ring network; and

- a transaction based connectivity for communicating at least one message among at least a portion of the ring members, wherein the message is travels from a first ring member to a second ring member based at least in part on an address assigned to the second ring member, the second ring member being the destination ring member for which the message is intended, the message being passed along the ring network from the first ring member to the second ring member by one or more other ring members each having an address intermediate the addresses of the first and second ring members, wherein the message is received and removed from the ring network upon receipt by the second ring member. (see Sweazey, Col. 1 lines 11-17, Col. 1 lines 52-61, Col. 5 line 65 to Col. 6 line 15, Col. 6 lines 15-19, Col. 6 line 43 to Col. 7 line 2)

Claims 59-74 list all the same elements of claims 1-21, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claims 1-21 applies equally as well to claims 59-74.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached UPSTO 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay M Bhatia whose telephone number is (571)-272-3906. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia M Wallace can be reached on (571)-272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB

  
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SUPERVISORY PATENT EXAMINER